

0300 Specific Site Requirements (Gray Pages)

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0300 Specific Site Requirements

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. This section describes the location, the features present, and the WORK to be performed at the Bonanza Project located in Uintah County, Utah. The items of the WORK shall be performed according to the appropriate sections of these specifications.
- B. It is the intent of these Specifications that the site-specific scope of WORK is as described in this Section. The General Technical Specifications, Sections 0200 through 0290, outline WORK broadly applicable to all abandoned mine reclamation situations and that may not be required at each mine site in this project. Where there is a conflict between Section 0300 and the General Technical Specifications (0200's), Section 0300 shall govern.
- C. The access, site description and specific requirements for each closure method are described in this Section. Details and dimensions are shown on the drawings in Appendix E. CONTRACTOR shall be aware that the dimensions on the Drawings are shown as typical. CONTRACTOR shall also be aware that minimum or maximum dimensions on the Drawings or given in the Specifications are specific and are to be adhered to unless the OWNER approves changes in writing. The quantities presented in the specific site sections should be considered an estimate with a tolerance of plus or minus 15 percent. CONTRACTOR shall visit each site and determine the quantities and amounts required in performing the WORK as intended in these Specifications and on the Drawings.

1.02 PROJECT LOCATION AND DESCRIPTION

- A. The Bonanza Project area consists of approximately 14 identified abandoned mine openings. The mine openings consist of vertical shafts. The openings occur in a wide range of sizes, configurations, and conditions.
- B. Descriptions of each of the sites and their locations are presented below. A listing of all sites and the general location within Utah is shown on the General Location Map (Map D1). The actual open site locations are shown on the Maps D2 through D8 in Appendix D. Requirements for each closure method are described in the Technical Specifications and shown on the drawings located in Appendix E. The access, site description and specific requirements for each closure method are described in this Section. CONTRACTOR shall be aware that the dimensions on the Drawings are shown as typical. CONTRACTOR shall also be aware that minimum or maximum dimensions on the Drawings or given in the Specifications are specific and are to be adhered to unless such changes are approved in writing by the OWNER. The quantities presented in the specific site sections should be considered an estimate with a tolerance of plus or minus 15 percent. CONTRACTOR shall visit each site and determine the quantities and amounts required in performing the WORK as intended in these Specifications and on the Drawings. The schedule of mine openings, dimensions, method of closure, estimated quantities, access and backfill borrow locations for each site is presented in Appendix B, Mine Closure Schedule.
- C. The schedule of mine openings, dimensions, method of closure, estimated quantities, access and backfill borrow locations for each site is presented in Appendix B, Mine Closure Schedule.
- D. The Bonanza Project is mapped on the Big Pack Mountain NE USGS 7.5 minute quadrangle.

1.03 MINE OPENING LOCATIONS AND DESCRIPTIONS

- A. Locations, descriptions, approximate dimensions, closure methods, and map references of each mine opening (site) are provided in the table in Appendix B. Detailed locations of the sites are presented on the maps in Appendix D. Note that mine symbols may be plotted on the maps offset

slightly from their true locations due to terrain interference with GPS surveys and the way the mapping software treats shaft symbols.

- B. Site ID Numbers (Tag Numbers): Each mine opening or feature is identified by a unique site identification number such as 3411308HO002. The ID number consists of seven digits, two letters, and three digits. The first digit indicates the quadrant around the Salt Lake baseline and meridian (or the Uinta special meridian). Townships south and east of the SLBM are coded "4." The second and third digits indicate the township, the fourth and fifth digits indicate the range, and the sixth and seventh digits indicate the section. These numbers are followed by letters indicating the type of mine opening or feature (H = horizontal adit, I = inclined adit, V = vertical shaft, SH = subsidence hole, PR = prospect, TR = trench, PT = open pit,) and, in the case of shafts and adits, letters indicating whether the mine is open (O) or closed (C). These letters are followed by numbers that are sequential numbers assigned as the openings were encountered during the field inventory. Thus, site number 4060318HO003 is the third horizontal opening (HO) inventoried in Township 6 South, Range 3 East, Section 18. The leading zeros in the sequential number part of the ID number are frequently omitted (i.e. HO3 instead of HO003).
- C. Identifying Sites: Sites in the field are marked two ways, with wooden stakes and steel washers. The 1"x2" wooden stakes have the full ID number written in ink. The washers are 1½" diameter and are bolted to rock with masonry anchors. They are stamped with only the opening ID, without the numbers for quadrant, township, range, and section (e.g. just "HO3"). Because of vandalism or weather, many mine ID markers are illegible or are missing altogether. Some mine features, particularly small prospects, are not marked. In a very few cases, sites have been renumbered, and ID numbers on tags may not match the ID number in these Specifications. CONTRACTOR will have to rely on the site location maps and the descriptions in Appendix B to identify mine sites. OWNER's Contract Representative will provide assistance in identifying the mine openings.

1.04 PROJECT SITE GROUPINGS

- A. The mine sites in the Bonanza Project have been organized into two subgroups or areas based on geographical proximity and access considerations. These subareas are the basis for the area detail maps in Appendix D and the site groupings in the Bid Schedule and Appendix B. The two groups or subareas are: Site Group 1 – T9S, R21E and Site Group 2 – T10 S, R21E.

<u>GROUP NAME</u>	<u>TAG NUMBER</u>
SITE GROUP 1 T9S, R21E (5 sites)	4092132VO001 4092132VO002 4092132VO003 4092132VO004 4092132VO005
SITE GROUP 2 T10S, R21E (9 sites)	4102129VO001 4102129VO002 4102129VO003 4102129VO004 4102129VO005 4102129VO006 4102129VO007 4102132VO001 4102132VO002

1.05 PROJECT AREA ACCESS

- A. This section describes the access to the work areas and the individual sites within each area. The work to be performed on the Bonanza Project is located in three sections located south of Vernal, Utah. Nine of the sites are within Township 10 South, Range 21 East; four sites are located in Township 9 South, Range 21 East; all are located in Uintah County, Utah. The bid package descriptions are divided into two major groupings containing the 14 total open mine sites as described below.

- B. General access to all of the sites in the Bonanza Project will be described from the center of Vernal Utah, the county seat of Uintah County. Vernal is located in northeastern Utah on U.S. Route 40/191, approximately three hours driving time east of Salt Lake City and very close to the Colorado border. From the courthouse (on U.S. Route 40/191 in the center of Vernal), head west on U.S. Route 40/191 approximately 17 miles to a sign pointing south (left) to Ouray Bridge. The highway towards Ouray Bridge is Utah State Route 88. Travel south on Route 88 to the little town of Ouray and continue across the Green River at the Ouray Bridge (south 17 miles from the intersection of U.S. Route 40 and Utah State Route 88). The road forks immediately after the bridge. The access to the various sites will be described from the bridge.

1.06 LAND STATUS

- A. The Bonanza Project area contains land owned by the School and Institutional Trust Lands Administration. OWNER is responsible for obtaining the necessary rights of entry to perform the reclamation work.

PART 2 - SPECIAL CONDITIONS AND RESTRICTIONS

2.01 CULTURAL RESOURCE PROTECTION

- A. The Bonanza Project area has five mine openings determined to be on significant historical sites eligible for listing on the National Register of Historic Places. All reclamation activities shall be conducted in a manner sensitive to the historic values and resources found in the area. CONTRACTOR shall ensure that all construction crew members are aware of the cultural sensitivity of the area and the cultural resource protection requirements.
- B. While features such as cabins, headframes, and ore chutes are obviously important, many of the historically important features present in the project area are not readily apparent. For example, ore sorting areas may appear simply as a patch of differently colored rock on a dump. Much of what is significant at one location might typically be dismissed as "trash" somewhere else. Often, the mine opening itself, or cribbing within an opening, is important and needs to be treated appropriately.
- C. Access improvement, excavation, and other ground disturbing activities shall be limited to the minimum necessary to achieve the goals of the WORK. Alteration or removal of structures or structural elements of mine openings, such as props, lagging, cribbing, retaining walls, foundations, and doorways shall be limited to the minimum necessary to safely and effectively install the closure. Any such alteration shall be planned in consultation with and executed as directed by the OWNER.
- D. One of the key features of the project area that makes the mining district historically important is its surviving "historic landscape", the overall appearance of the terrain dotted with mine dumps and workings offering a glimpse of the past. To preserve this historic appearance, when possible mine dumps used as a source of backfill shall be excavated in a way that maintains the outer lines and grades of the dump. This can be done by uniformly removing material from all surfaces, by removing material from the top down, by slightly "hollowing out" the dump, or by removing one lobe of a multi-lobed dump. The idea is to avoid leaving the dump with an uneven, gouged look.
- E. Removal of historic or prehistoric artifacts or rock specimens is prohibited. This includes, but is not limited to, bottles, bottle fragments, china and glass fragments, tools, tin cans, buckets, pipe, wire, nails, spikes, bolts, track, machinery, ore cars, vehicles, lumber and other wood, arrowheads and other stone tools, ore samples, petrified wood, and fossils.
- F. CONTRACTOR shall stop work and notify OWNER immediately if human burial remains are discovered.
- G. There are possible paleontological resources (fossils) within the project boundaries. No excavation of rock will be permitted within the project area.

2.02 BAT CONSERVATION

- A. OWNER has performed surveys to determine which mines are used for bat habitat. Where bats are present in a mine, they will be excluded from the mine prior to installing airtight closures (see Section 0250, Part 3.01.F). Sites requiring exclusion prior to closure are indicated in Appendix B.
- B. The length of the exclusion period may be reduced from one week to three fair weather days with OWNER's approval. Rainy or cold weather inhibits bat activity and will increase the length of the exclusion accordingly, up to the one week maximum.
- C. The heavy recreational use of the project area increases the possibility that vandals may damage or remove the chicken wire seals during the exclusion period. Should this occur, damaged seals shall be replaced and the exclusion period started over.
- D. The exclusion process is effective only in warm seasons when bats are active. To prevent entombing hibernating bats, sites indicated in Appendix B as requiring exclusion prior to closure shall not be closed during the cold season (from October 31 to March 31). Closure of these sites shall be postponed to the following warm season. Cold season closures may be performed following an internal inspection for hibernating bats. Internal inspections shall be performed by the OWNER and are subject to the availability of the OWNER's bat inspection team.
- E. Vertical shafts covered with chicken wire for bat exclusion shall be flagged with warning tape.

2.03 BIRD CONSERVATION

- A. A number of state and federal laws or policies protect several bird species. CONTRACTOR shall avoid or minimize disturbance to protected birds as outlined in this section. Generally this is done by scheduling work to avoid sensitive breeding activity and by minimizing habitat disturbance.
- B. During spring nesting and fledging (January 15 to August 31) OWNER will perform line-of-site visual surveys for raptor nests in the vicinity of the mine sites. If nests are found, CONTRACTOR shall reschedule work at those sites until after August 31.

2.04 LAND PROTECTION

- A. Trash, containers, wrappings, empty mortar and concrete mix bags, concrete block fragments, rebar cuttings, welding rod scraps, waste PUF, pallets, water jugs, buckets, broken tools, discarded materials, food wrappers, beverage containers, paper towels, and other such litter generated by the reclamation activities shall be kept contained during construction and shall be cleaned up and removed from the site upon completion.
- B. CONTRACTOR shall exercise care with open flames when welding or cutting to avoid starting range fires. CONTRACTOR shall submit a written range fire prevention and fire response plan to OWNER at the start of construction.
- C. CONTRACTOR shall be responsible to reimburse landowners or lease holders for livestock or other property lost, injured, or damaged by CONTRACTOR's operations on access roads.

2.05 ACCESS RESTRICTIONS

- A. Three mine openings in Section 29 require access around a high pressure gas line paralleling the existing roadway. Access to the sites will be along the west side of the pipeline in a manner as to avoid vegetation. Mechanized access to the sites is limited to a single trip on the designated route up the wash bottom. Ground disturbance shall be minimized. Vehicle tracks shall be raked out thoroughly upon completion.
- B. Vehicles shall stay on existing roadways as much as possible and avoid cross-country trips across undisturbed areas except where necessary. CONTRACTOR shall select from a pre-determined number of staging areas identified in the specifications and secure all necessary permits, including camping permits, from the applicable land management agency.

2.07 WORKER HEALTH AND SAFETY

- A. The CONTRACTOR shall comply with all applicable standards of the Mine Safety and Health Administration (MSHA) published in "Safety and Health Standards Applicable to Underground Metal and Nonmetal Mining and Milling Operations" (30 CFR Part 57), in particular sections 57.5037 through 57.5047.
- B. Rodents often nest in abandoned mines and leave accumulations of droppings and nest debris. In theory, these nests and droppings could host the potentially lethal Hantavirus, although no mine closure work has ever been linked to a case of Hantavirus. As a precaution, workers should avoid stirring up dust or rodent droppings in mines and use standard hygiene and sanitation practices (washing before eating, etc.). Workers are encouraged to learn to recognize the symptoms of Hantavirus infection and seek proper medical attention if indicated.
- C. The heavy reliance on manual labor for this project and the steep, rugged terrain increase the probability of orthopedic and trauma injuries. Standard safety gear (hard hat, steel-toed shoes) are required for all personnel. Fatigue, heat stress, and dehydration are inherent medical risks of heavy manual labor in desert environments. Frostbite and hypothermia are risks of winter work. Workers should take appropriate precautions for the site conditions.
- D. CONTRACTOR is required to hold regular safety meetings and is encouraged to have a response plan in place in the event of accidents, personal injury, animal bites, or other medical emergency.
- F. All of Uintah County is covered by 911 emergency telephone service, but the project area may have unreliable cell phone coverage.

PART 3 - EXECUTION

3.01 WORK REQUIRED AT ALL SITES

The following WORK shall be performed at the sites:

- A. Improve access to the site along the routes described to the degree required to conduct the WORK. All access improvement shall be performed in accordance with Section 0230: Access Improvement. Where access has been created, the access shall be closed following construction in accordance with Section 0230: Access Improvement. Access grading shall be in accordance with Section 0270: Site Grading/Earthwork.
- B. Items specifically identified for demolition shall be demolished and disposed of in accordance with Section 0240: Demolition and Clean-up.
- C. Trash and debris created during construction shall be removed and disposed of in accordance with Section 0240: Demolition and Clean-up.
- D. Mine openings and subsidence holes shall be sealed or closed in accordance with the mine closure method identified for the specific site as specified in this Section and in accordance with Section 0250: Mine Closures, and Section 0253: Bat Gate and Shaft Grate Installation, and as shown on the Technical Specification Design Drawings in Appendix E.
- E. Site grading and earthwork required shall be performed in accordance with Section 0270: Site Grading/Earthwork.
- F. CONTRACTOR shall finish all openings reclaimed by the backfill closure method by mounding the collar and/or building berms or ditches as appropriate for each site. The purpose of the mounds, ditches or berms is to divert runoff around the edge of the backfill to keep drainage from contributing to deterioration and saturation of the fill. Typical details for mounds, berms and ditches are described in Section 0250: Mine Closures, and are shown on the Technical Specification Design Drawings in Appendix E.

- G. CONTRACTOR shall clear any timber or debris caught in the upper portion of vertical openings that may cause bridging of the backfill. Timbers removed from mine openings do not have to be disposed of. They must be left on site. All material other than wood removed from a mine opening shall be hauled off the site and disposed of at an approved landfill or used for scrap.
- H. The location of backfill material for each site is specified in Appendix B, Mine Closure Schedule and within each site description as directed by the OWNER. Adjacent or nearby dumps will be used prior to use of natural soil material. Where existing dumps do not contain adequate material to backfill the open mine site, it is assumed for revegetation purposes that 1 foot of material over an appropriately sized area will be used to meet the backfill requirements.
- I. Finished grading of backfill pursuant to Sections 0250: Mine Closures; Section 0270: Site Grading/Earthwork; and this Section 0300: Specific Site Requirements will be completed prior to completion of the CONTRACT. For all sites where revegetation is planned (See Appendix B), the revegetation shall be performed in accordance with Section 0290: Revegetation.
- J. Rights of Entry from the Landowners have been obtained on all the sites contained in the WORK.
- K. CONTRACTOR shall protect all gas/oil pipelines within the project area during construction activities. If access requires crossing any pipeline, the pipeline will be adequately protected to avoid any potential damage to the pipeline.
- L. Polyurethane foam (PUF) closures shall be installed in a controlled manner that minimizes spatter and overspray of foam onto historic structures and the ground. Masking of headframes, collar cribbing, casings, and other structural elements with plastic or paper sheeting may be necessary to protect them from spatter and overspray. CONTRACTOR shall clean up any misapplied foam and masking materials.
- M. Polyurethane foam (PUF) closure of 6 shafts is scheduled in order to retain the historic fabric of these mine openings. The following table provides estimated quantities of PUF, drain pipe, concrete and fill for these 4 shaft closures. **The PUF closures are bid on a lump sum basis per mine opening installed.**

Shaft Tag Number	Width (ft)	Length (ft)	PUF Thickness (ft)	PUF Vol. (Ft ³)	PUF Vol. (CY)	Drain Pipe Length (ft)	Concrete Vol. (Ft ³)	Concrete Vol. (CY)	Depth To Form (ft)
4092132VO001	3.0	12.0	9.0	324	12.0	10.5	36.0	1.3	12.0
4092132VO002	2.0	14.0	6.0	168	6.2	7.5	28.0	1.0	9.0
4092132VO003	3.0	11.0	9.0	297	11.0	10.5	33.0	1.2	12.0
4092132VO004	1.5	6.5	4.5	44	1.6	6.0	9.8	0.4	5.5
4092132VO005	3.5	11.0	10.5	404	15.0	12.0	38.5	1.4	13.5
4102132VO001	1.5	47	4.5	317	11.8	6.0	70.5	2.6	7.5
TOTALS:				1,554	457.6	52.5	215.8	7.9	

Abbreviations used in table:

ft = distance in feet Vol. = Volume Ft³ = Cubic Feet CY = Cubic Yards

The top surface of each polyurethane foam (PUF) seal will be recessed 3 feet below grade within the shaft. Completion of the closure includes placing a one (1) foot concrete cover graded to the center steel drain pipe. One (1) foot of course rock fill will be placed on top of concrete on each PUF closure leaving about one (1) foot of the mine opening to retain the historic nature of the mine opening.

- N. The ventilation/drain pipes used in the polyurethane foam (PUF) shaft closures shall be 2-inch diameter galvanized steel as specified in Section 0254, Part 2.01.H and as shown on the Technical Specification Design Drawings in Appendix E.

- O. Due to limited coversoil and rock backfill, revegetation may be limited in areas of bedrock outcroppings. Finished grading of backfill pursuant to Sections 0250, Mine Closures; Section 0270, Site Grading/Earthwork; and this Section 0300, Specific Site Requirements will be completed prior to completion of the CONTRACT. For those sites where revegetation is planned, the revegetation shall be performed in accordance with Section 0290, Revegetation.

3.02 CONSTRUCTION SCHEDULING

- A. Notice to proceed with construction is contingent upon OWNER receiving authorization from the U.S. Office of Surface Mining. OWNER expects authorization to be in place by the bid date. However, if lacking, WORK will be postponed accordingly.
- B. Work Priorities: No Work priorities are required for completion of the project. CONTRACTOR shall organize the execution of the WORK to minimize the time required to complete the project.
- C. Most of the site reclamation for the Bonanza Project is not weather dependent. It is conceivable that the project work could be temporarily suspended for wet ground conditions. The CONTRACTOR shall account for this potential shutdown within the mobilization/demobilization cost. The mine closure costs quoted on the bid schedule apply for the duration of the reclamation. The start-up date for resumption of WORK suspended due to adverse weather or other conditions will be determined by OWNER in consultation with CONTRACTOR and will depend upon the nature of the uncompleted WORK.

PART 4 - PROJECT DESCRIPTION

4.01 WORK INCLUDED

- A. The Bonanza Project area consists of numerous vertical openings left from abandoned gilsonite mines in the area south of the town of Vernal, Uintah County, Utah. The town of Vernal is located in northeastern Utah on U.S. Route 40/191, approximately three hours driving time east of Salt Lake City and very close to the Colorado border. Elevations across the project range from 4,900 to 5,400 feet
- B. The Bonanza Project area encompasses 14 vertical openings left from abandoned gilsonite mines. Gilsonite, a naturally occurring hydrocarbon, was discovered in the area in the mid-to-late 1800's. The Uintah Basin of Utah and Colorado is one of the few locations in the world where gilsonite is found. It has been mined in this location for over 110 years, with mining still occurring in the area. All of the open abandoned sites are accessible by four-wheel-drive trucks. Some of the sites require short hiking to reach the actual openings. All of the mine openings are small in aerial extent and disturbance to the surrounding topography.
- C. Appendix A contains the revegetation seed mixture to be used on the sites specified. Revegetation is currently planned for some sites being reclaimed using dirt or loose material, which might support vegetation as indicated on a site-by-site basis. The OWNER anticipates that construction disturbance will be limited to the immediate vicinity of the mine openings. However, if any excessive or unauthorized disturbance takes place by the CONTRACTOR, it must be repaired and revegetated at the CONTRACTOR'S expense. All revegetation required will be completed in accordance with Technical Specification Section 0290-Revegetation.
- D. Appendix B lists the mine sites by type of closure and contains additional information on each site including dimensions, access, backfill source, reclamation action, reclamation method and quantities required.
- E. Appendix C contains the Daily Construction Progress Report and Contractor Performance Rating Sheet.
- F. Appendix D contains the project location maps for all areas. The entire reclamation project area is shown on the General Location Map (Map D1).
- G. Appendix E contains the Technical Specification Design Drawings.

4.02 PROJECT GROUPING DESCRIPTIONS

- A. This section describes the access to the work areas and the individual sites within each area. The work to be performed on the Bonanza Project is located in three sections located south of Vernal, Utah. Nine of the sites are within Township 10 South, Range 21 East; four sites are located in Township 9 South, Range 21 East; all are located in Uintah County, Utah. The bid package descriptions are divided into two major groupings containing the 14 total open mine sites as described below.
- B. General access to all of the sites in the Bonanza Project will be described from the center of Vernal Utah, the county seat of Uintah County. Vernal is located in northeastern Utah on U.S. Route 40/191, approximately three hours driving time east of Salt Lake City and very close to the Colorado border. From the courthouse (on U.S. Route 40/191 in the center of Vernal), head west on U.S. Route 40/191 approximately 17 miles to a sign pointing south (left) to Ouray Bridge. The highway towards Ouray Bridge is Utah State Route 88. Travel south on Route 88 to the little town of Ouray and continue across the Green River at the Ouray Bridge (south 17 miles from the intersection of U.S. Route 40 and Utah State Route 88). The road forks immediately after the bridge. The access to the various sites will be described from the bridge.
- C. The two major groupings are the T9S, R21E Site Group consisting of 5 open shafts in Section 32 and the T10S, R21E Site Group consisting of 7 open shafts in Section 29 and 2 open shafts in Section 32. Access to the two major areas is described below. Four wheel drive vehicles, crawler mounted equipment, or occasionally, foot travel may be required to reach individual sites. Access varies by site group and individual site. Access to each individual site is described under that site.

4.03 TOWNSHIP 9 SOUTH, RANGE 21 EAST GROUP

A. GENERAL SUBGROUP LOCATION AND ACCESS

The T9S, R21E Site Group includes five (5) open sites. To access these 5 sites, continue straight ahead (south fork) after crossing the Ouray Bridge (south on Utah State Route 88, 17 miles from the intersection of U.S. Route 40 and Utah State Route 88). Stay to the right (south) and continue for 6.5 miles where a gravel road exits to the left (east) from the main paved road. Take this gravel road for 2.2 miles at which time you cross a natural gas pipeline and the road forks again. Either road will take you to the open sites in this section, however the straight road along the pipeline will be described as follows. At the above intersection, take the left fork (slightly northeast) along the pipeline and follow this pipeline road for 2.7 miles where you come to an almost perpendicular intersection. Take the road to the right (south) and follow this road approximately 0.4 mile and there will be a triangular intersection in the road. The open sites and black gilsonite cuttings are visible from this intersection. Stay to the left (southeast) for another 0.1-mile and the rough access to the open sites in this section should be apparent. All five sites are located along a 150-yard strike length section of gilsonite outcropping. The access to the four sites in Section 32, T9S, R21E, will be described from this point.

B. INDIVIDUAL SITE LOCATIONS -- DESCRIPTIONS AND WORK REQUIRED

The locations of the T9S, R21E Site Group mine sites are shown on Map Sheets D2 and D3, which are included in Appendix D.

1. Site 4092132 VO001 (PUF - Historic, Bats)

a. Location and Description

Vertical opening 4092132VO001 is located in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 32, T09S, R21E at an elevation of 4953 feet. Site VO001 is located roughly 100 yards east, northeast of the vehicle stop point described above. There is no current vehicle access to this site; however, the terrain is very gentle and relatively flat. This vertical opening is evidenced by a small mound of surrounding black gilsonite cuttings. The site is openly exposed with no fencing or signs present. A small amount of debris consisting of broken glass, wood, metal and china is present. Dimensions of the vertical opening at the collar are 3.0 feet wide by 12.0 feet long. The opening

appears to narrow slightly with depth to an inside dimension of 2.5 feet side by 9.0 feet long at 4 feet below the collar. The opening is 107.5 feet deep. There are timber stull supports visible below the surface. The site is surrounded by broken rocks, earth, and small mounds of gilsonite, however, no formal dump exists at this site.

b. The Work

The CONTRACTOR shall exclude bats from this shaft prior to any closure activity in accordance with Technical Specification 0250 – Mine Closures.

Access to the site will need improvement prior to the commencement of reclamation. The CONTRACTOR shall improve access to the site along the route described to the degree required to conduct the WORK. Where access has been created, the access shall be closed following construction. Access improvement and closure shall be performed in accordance with Technical Specification 0230. Access grading shall be in accordance with Section 0270 - Earthwork/Grading.

The CONTRACTOR shall protect any mine timbers (short stulls) within and around the shaft. A small amount of other debris consisting of broken glass, metal and china shall also be protected during closure reclamation. If earth-moving work is required at the site, the mine timbers will be left intact and other debris will be placed away from the opening and replaced after closure of the vertical opening.

The CONTRACTOR will be required to install a Shaft PUF (Polyurethane Foam) Closure of 4092132VO001. The CONTRACTOR will fabricate this closure on site per the dimensions determined by CONTRACTORS field measurements and as approved by the OWNER. It is estimated that the closure will have a PUF length of 12 feet by 3 feet wide. The top of the finished concrete/PUF cap shall be 2 feet below the level of the collar to retain the historic appearance of the shaft. One foot of native rock/soil will be placed on the top of the finished concrete cap. Borrow material location will be determined in the field as approved by the OWNER and away from any historical materials. Construction estimates for this PUF closure are provided in the table located in Section 0300, Part 3.01.M. on page 122. Fabrication and installation shall be conducted in accordance with Technical Specification Sections 0250 through 0254 and as shown on the Drawings in Appendix E.

It is anticipated that revegetation will be performed on the borrow area adjacent to this site.

The gilsonite vein is very continuous along strike length and appears to be near vertical in dip. The distance between 4092132VO001 and 4092132VO002 is approximately 114 feet, between VO002-VO004 approximately 100 feet, between VO004-VO003 approximately 200 feet, and between VO001-VO005 approximately 236 feet. The entire strike length between VO003 and VO005 is therefore approximately 650 feet, and is covered with broken rock with broken black gilsonite exposed at the surface. It is unknown whether a thin crown pillar exists in this area. The CONTRACTOR will first probe the 650-foot strike length of the gilsonite vein between 4092132VO003 and 4092132VO005 to test the thickness and integrity of any remaining crown pillar. An auger type drill or air-track type drill will be used for probing. The diameter of the drill holes will be kept to a minimum required to verify the thickness of the crown pillar. The holes will be on 10-foot centers to a minimum depth of 15 feet, for a total of approximately 61 holes. If it is determined that this area has already been filled or that the crown pillar is thicker than 15 feet, then backfilling and re-grading of the drill holes with cuttings and reclaiming the individual openings is all that is necessary.

If it is determined that a crown pillar of less than 15 feet vertical thickness exists, then the pillar shall be excavated to a depth of approximately 2 feet by the most expeditious method; either drilling with moil type long hole equipment (as is currently being used in the on-going gilsonite operations in the area) or by backhoe in accordance with the specifications listed under Crown Pillar Excavation, Section 0255. The material removed from the crown pillar will be replaced into the trench as backfill. One foot of reinforced concrete shall be placed over the gilsonite to bridge the crown pillar. The concrete reinforcing shall be a single two-foot mat of number 6 rebar steel doweled one-foot into the walls on 8-foot centers. All rebar shall be imbedded in the concrete a minimum of three inches at any point. The removed crown pillar material shall then be replaced

over the concrete slab to approximate the pre-construction configuration of the vein. A minimum of 6 feet of gilsonite shall be required for the bottom form for installation of the concrete cap. If the crown pillar is less than 8 feet in thickness, a bottom form shall be required for the installation of the concrete cap. Bottom form shall consist of PUF with thickness calculated for three times the vein width. The gilsonite shall be excavated by the most expeditious method; either drilling with moil type long hole equipment (as is currently being used in the on-going gilsonite operations in the area) or by backhoe in accordance with the specifications listed under Crown Pillar Excavation, Section 0255. The material removed from the crown pillar will be replaced into the trench as backfill. No personnel shall be allowed in the excavated trench. It should be noted that even though these openings are open to the surface, trapped gilsonite dust can be very explosive. In the event that trapped dust may exist, flammable products or procedures should not be used in testing or removing the gilsonite crown pillar. If a thin crown pillar is present, it is anticipated that as much as 67.1 cubic yards of concrete would be necessary to fill the resultant opening. The volume of PUF that may be required is unknown until drilling proves thickness of the crown pillar. Should a crown pillar greater than 15 feet be found between 4092132VO005 and 4092132VO003, the reclamation will consist of backfilling of the exploration drill holes with cuttings. Any regrading will blend with the adjacent terrain to promote positive drainage. All backfilling shall be conducted in accordance with Technical Specification Section 0250 - Mine Closures, and as shown on the Technical Specification Design Drawings in Appendix E.

2. Site 4092132 VO002 (PUF – Historic, Bats)

a. Location and Description

Vertical opening 4092132VO002 is located in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 32, T09S, R21E at an elevation of 4956 feet. Site VO002 is located 114 feet to the northwest (azimuth 310 degrees) from VO001. Vehicle access is possible nearly to the edge of this site from the intersection mentioned above. The terrain is very gentle and relatively flat. This vertical opening is evidenced by a small mound of surrounding black gilsonite cuttings. The site is openly exposed with no fencing or signs present. Very little debris is present. Dimensions of the vertical opening are 2.0 feet wide by 14.0 feet long. The opening is 33.0 feet deep. There are timber stull supports and steel cable visible below the surface. The site is surrounded by broken rocks, earth, and small mounds of gilsonite, but the dump is non-existent.

b. The Work

The CONTRACTOR shall exclude bats from this shaft prior to any closure activity in accordance with Technical Specification 0250 – Mine Closures.

Access to the site will need improvement prior to the commencement of reclamation. The CONTRACTOR shall improve access to the site along the route described to the degree required to conduct the WORK. Where access has been created, the access shall be closed following construction. Access improvement and closure shall be performed in accordance with Technical Specification 0230. Access grading shall be in accordance with Section 0270 - Earthwork/Grading.

The CONTRACTOR shall protect any mine timbers (short stulls) within and around the shaft. A small amount of other debris consisting of broken glass, metal and china shall also be protected during closure reclamation. If earth-moving work is required at the site, the mine timbers will be left intact and other debris will be placed away from the opening and replaced after closure of the vertical opening.

The CONTRACTOR will be required to install a Shaft PUF (Polyurethane Foam) Closure of 4092132VO002. The CONTRACTOR will fabricate this closure on site per the dimensions determined by CONTRACTORS field measurements and as approved by the OWNER. It is estimated that the closure will have a PUF length of 14 feet by 2 feet wide. The top of the finished concrete/PUF cap shall be 2 feet below the level of the collar to retain the historic appearance of the shaft. One foot of native rock/soil will be placed on the top of the finished concrete cap. Borrow material location will be determined in the field as approved by the OWNER and away from any historical materials. Construction estimates for this PUF closure are provided in the table located in Section 0300, Part 3.01.M. on page 122. Fabrication and

installation shall be conducted in accordance with Technical Specification Sections 0250 through 0254 and as shown on the Drawings in Appendix E.

It is anticipated that revegetation will be performed on the borrow area adjacent to this site.

3. Site 4092132 VO003 (PUF – Historic)

a. Location and Description

Vertical opening 4092132VO003 is located in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 32, T09S, R21E at an elevation of 4958 feet. Site VO003 is located 200 feet to the northwest (azimuth 310 degrees) from VO004. Vehicle access is possible nearly to the edge of this site from the intersection mentioned above. The terrain is very gentle and relatively flat. This vertical opening is evidenced by a small mound of surrounding black gilsonite cuttings and old wooden cribbed shaft collar structures extending approximately 1.5 feet above the ground surface. The site is openly exposed with no fencing or signs present. Dimensions of the vertical opening are 3.0 feet wide by 11.0 feet long. The opening is over 100 feet deep. Debris consists of piles of old wood and steel cables, one of which extends down the shaft opening. There is a concrete slab and metal workings (probable hoist foundation) located 25 feet to the northeast, however, nothing that would be deemed unsafe. There are shaft timbers (round shaft cribbing and wooden plank guides) and steel cable visible below the surface. The site is surrounded by broken rocks, earth, and small mounds of gilsonite, but no dump site.

b. The Work

The CONTRACTOR shall not be required to exclude bats from this shaft.

Access to the site will need improvement prior to the commencement of reclamation. The CONTRACTOR shall improve access to the site along the route described to the degree required to conduct the WORK. Where access has been created, the access shall be closed following construction. Access improvement and closure shall be performed in accordance with Technical Specification 0230. Access grading shall be in accordance with Section 0270 - Earthwork/Grading.

The CONTRACTOR shall protect the mine timbers (short stulls) within and around the shaft. A small amount of other debris consisting of broken glass, metal and china shall also be protected during closure reclamation. If earth-moving work is required at the site, the mine timbers will be left intact and other debris will be placed away from the opening and replaced after closure of the vertical opening.

The CONTRACTOR will be required to install a Shaft PUF (Polyurethane Foam) Closure of 4092132VO003. The CONTRACTOR will fabricate this closure on site per the dimensions determined by CONTRACTORS field measurements and as approved by the OWNER. It is estimated that the closure will have a PUF length of 11 feet by 3 feet wide. The top of the finished concrete/PUF cap shall be 2 feet below the level of the collar to retain the historic appearance of the shaft. One foot of native rock/soil will be placed on the top of the finished concrete cap. Borrow material location will be determined in the field as approved by the OWNER and away from any historical materials. Construction estimates for this PUF closure are provided in the table located in Section 0300, Part 3.01.M. on page 122. Fabrication and installation shall be conducted in accordance with Technical Specification Sections 0250 through 0254 and as shown on the Drawings in Appendix E.

It is anticipated that revegetation will be performed on the borrow area adjacent to this site.

4. Site 4092132 VO004 (PUF - Historic)

a. Location and Description

Vertical opening 4092132VO004 is located in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 32, T09S, R21E at an elevation of 4958 feet. Site VO004 is located 100 feet to the northwest (azimuth 310 degrees) from VO002. Vehicle access is possible nearly to the edge of this site from the intersection mentioned above. The terrain is very gentle and relatively flat. This vertical opening

is evidenced by a cribbed wooden opening surrounded by old wooden planks and miscellaneous timbers. The wooden cribbing extends less than 6 inches above the surface. The site is openly exposed with no fencing or signs present. Dimensions of the vertical opening are 1.5 feet wide by 6.5 feet long. The opening is apparently 5.5 feet deep. The bottom of the opening appears to be filled to a depth of 5.5 feet below the surface. Debris consists of piles of old wood and nails. The vertical opening is cribbed to its apparent depth. The site is surrounded by broken rocks, earth, and small mounds of gilsonite. No dump is present at this site.

b. The Work

The CONTRACTOR shall not be required to exclude bats from this shaft.

Access to the site will need improvement prior to the commencement of reclamation. The CONTRACTOR shall improve access to the site along the route described to the degree required to conduct the WORK. Where access has been created, the access shall be closed following construction. Access improvement and closure shall be performed in accordance with Technical Specification 0230. Access grading shall be in accordance with Section 0270 - Earthwork/Grading.

The CONTRACTOR shall protect any mine timbers (short stulls) within and around the shaft. A small amount of other debris consisting of broken glass, metal and china shall also be protected during closure reclamation. If earth-moving work is required at the site, the mine timbers will be left intact and other debris will be placed away from the opening and replaced after closure of the vertical opening.

The CONTRACTOR will be required to install a Shaft PUF (Polyurethane Foam) Closure of 4092132VO004. The CONTRACTOR will fabricate this closure on site per the dimensions determined by CONTRACTORS field measurements and as approved by the OWNER. It is estimated that the closure will have a PUF length of 6.5 feet by 1.5 feet wide. The top of the finished concrete/PUF cap shall be level with the collar to retain the historic appearance of the shaft. One foot of native rock/soil will be placed on the top of the finished concrete cap. Borrow material location will be determined in the field as approved by the OWNER and away from any historical materials. Construction estimates for this PUF closure are provided in the table located in Section 0300, Part 3.01.M. on page 122. Fabrication and installation shall be conducted in accordance with Technical Specification Sections 0250 through 0254 and as shown on the Drawings in Appendix E.

It is anticipated that revegetation will be performed on the borrow area adjacent to this site.

5. Site 4092132 VO005 (PUF – Historic, Bats)

a. Location and Description

Vertical opening 4092132VO005 is located in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 32, T09S, R21E at an elevation of 4948 feet. Site VO005 is located 236 feet to the southeast (azimuth 130 degrees) from VO001. Vehicle access is possible nearly to the edge of this site from the intersection mentioned above. The terrain is very gentle and relatively flat. This vertical opening is evidenced by a cribbed wooden opening surrounded by old wooden planks and miscellaneous timbers. The wooden cribbing extends 7 feet above the surface. The site is openly exposed with no fencing or signs present. Dimensions of the vertical opening are 3.5 feet wide by 11 feet long. The opening is greater than 50 feet deep. The vertical opening is cribbed to greater than 5 a foot depth. The bottom of the opening appears to be filled to a depth of 5.5 feet below the surface. A U-shaped terrace is located to the southeast of the shaft with dimensions of 46 feet by 23 feet with a maximum height of 4.5 feet. Debris consists of scattered old wood and nails. The site is slightly sloping to the southeast with a veneer of gilsonite on the dump.

b. The Work

The CONTRACTOR shall exclude bats from this shaft prior to any closure activity in accordance with Technical Specification 0250 – Mine Closures.

Access to the site will need improvement prior to the commencement of reclamation. The CONTRACTOR shall improve access to the site along the route described to the degree

required to conduct the WORK. Where access has been created, the access shall be closed following construction. Access improvement and closure shall be performed in accordance with Technical Specification 0230. Access grading shall be in accordance with Section 0270 - Earthwork/Grading.

The CONTRACTOR shall protect the mine timbers (short stulls) within and around the shaft. A small amount of other debris consisting of broken glass, metal and china shall also be protected during closure reclamation. If earth-moving work is required at the site, the mine timbers will be left intact and other debris will be placed away from the opening and replaced after closure of the vertical opening.

The CONTRACTOR will be required to install a Shaft PUF (Polyurethane Foam) Closure of 4092132VO005. The CONTRACTOR will fabricate this closure on site per the dimensions determined by CONTRACTORS field measurements and as approved by the OWNER. It is estimated that the closure will have a PUF length of 11 feet by 3.5 feet wide. The top of the finished concrete/PUF cap shall be 2 feet below the level of the collar to retain the historic appearance of the shaft. One foot of native rock/soil will be placed on the top of the finished concrete cap. Borrow material location will be determined in the field as approved by the OWNER and away from any historical materials. Construction estimates for this PUF closure are provided in the table located in Section 0300, Part 3.01.M. on page 122. Fabrication and installation shall be conducted in accordance with Technical Specification Sections 0250 through 0254 and as shown on the Drawings in Appendix E.

It is anticipated that revegetation will be performed on the borrow area adjacent to this site.

4.04 TOWNSHIP 10 SOUTH, RANGE 21 EAST GROUP

A. GENERAL SUBGROUP LOCATION AND ACCESS

The T10S, R21E Site Group includes nine (9) of the project open sites. To access these 9 sites, continue straight ahead (south fork) after crossing the Ouray Bridge (south on Utah State Route 88, 17 miles from the intersection of U.S. Route 40 and Utah State Route 88). Stay to the right (south) and continue for 8.6 miles to another fork in the road. Stay left on the major road as it turns southeast (the right hand fork leads to Willow Creek). After another 0.6-mile, the pavement stops and turns into a well traveled gravel road. Proceed 1.3 miles on the gravel road to another fork. Stay to the right (straight) on the main road as it turns rather sharply to the south. Continue south on the main road another 4.6 miles. Then turn left (east) off the main gravel road at the Love Compressor Station sign and onto a smaller dirt road. Follow this road for 1.2 miles and there will be a "T" intersection in the dirt road. The access to the two sites in Section 32 and seven (7) sites in Section 29, T10S, R21E, will be described from this point.

B. INDIVIDUAL SITE LOCATIONS – DESCRIPTIONS AND WORK REQUIRED

The locations of the T10S, R21E Site Group mine sites are shown on Map Sheets D4 through D8, which are included in Appendix D.

1. Site 4102129 VO001 (Backfill with Equipment)

a. Location and Description

For access to the 7 sites in Section 29, turn left, or north, at the "T" mentioned above. At about 0.8 mile from the "T" there is a minor fork in the road to the left, however stay straight (right) on the main dirt road. At 1.5 miles from the "T" there will be barbed wire fences on both sides of the road around the locations of sites VO001-VO005.

Vertical opening 4102129VO001 is located in the NW¼NW¼SE¼ of Section 29, T10S, R21E at an elevation of 5249 feet. Site VO001 is on the east side of the road, just inside a barbed wire fence. This vertical opening has several planks that cover parts of the opening, however most of the opening is exposed. Dimensions of the opening are 2.5 feet wide by 9.5 feet long. The opening is 93 feet deep. The site is surrounded by broken rocks and earth, however, no formal dump exists.

b. The Work

The CONTRACTOR shall exclude bats from this shaft prior to any closure activity in accordance with Technical Specification 0250 – Mine Closures.

The CONTRACTOR will first remove approximately 580 perimeter feet of 5-strand barbed wire fencing, complete with steel fence posts and wood corner bracing, which surrounds the two open sites 4102129VO001 and 4102129VO002. The wire will be neatly rolled and together with the steel fence posts will be disposed of in an approved landfill or used as scrap as per Section 2.01(G) above. The wooden fence braces and old planks covering 4102129VO001 will be stacked neatly away from the backfilled shaft. Earth-moving work at this site will require backfilling the 93-foot deep opening to the surface with approximately 85 cubic yards of material. Sufficient material for fill should be available from re-grading the surface in the surrounding area. Grade the backfill and borrow areas to blend with the adjacent terrain. The backfill will be mounded 2 foot high over the center of all filled surfaces and graded to promote positive drainage. This work can be done with equipment.

It is anticipated that revegetation will be performed on this site and the borrow area adjacent to this site.

The gilsonite vein is very continuous along strike length and appears to be near vertical in dip. The distance between 4102129VO001 and 4102129VO002 is approximately 96 feet in length and is covered with broken rock with broken black gilsonite exposed at the surface. It is unknown whether a thin crown pillar exists in this area. Therefore, the CONTRACTOR will first probe the 96-foot strike length of the gilsonite vein between 4102129VO001 and 4102129VO002 to test the thickness and integrity of any remaining crown pillar. If an air-track type drill is used for probing, the holes will be on 10-foot centers to a minimum depth of 15 feet, for a total of 9 long holes. If a backhoe is used, the vein will be exposed (at least bucket-width) to a minimum depth of 15 feet in at least 2 different equally spaced areas between 4102129VO001 and 4102129VO002. If it is determined that this area the crown pillar is thicker than 15 feet, then backfilling and re-grading is all that is necessary.

If it is determined that a crown pillar of less than 15 feet vertical thickness exists, then it shall be removed by the most expeditious method; either drilling with moil-type long hole equipment (as is currently being used in the on-going gilsonite operations in the area) or by backhoe in accordance with the specifications listed under Crown Pillar Excavation, Section 0255. If a crown pillar is less than 15 feet thick, it is anticipated that approximately 575 cubic yards of material would be necessary to fill the resultant opening if it extends to the (averaged) depth of 4102129VO001 and 4102129VO002. It should be noted that even though these openings are open to the surface, trapped gilsonite dust can be very explosive. In the event that trapped dust may exist, flammable products or procedures should not be used in testing or removing the gilsonite crown pillar. The broken surface material in the immediate vicinity is to be used to reclaim the remaining void in the mined-out area. If a crown pillar is found between 4102129VO001 and 4102129VO002 and additional fill material is required, the sloping hillside to the north and south of VO001 and VO002 can be re-terraced and the borrow material used for backfill. The backfill surface will be mounded 2 foot high over the center of the opening. Re-grade all borrow areas to blend with the adjacent terrain to promote positive drainage. This work can be done with equipment. All backfilling shall be conducted in accordance with Technical Specification Section 0250 - Mine Closures, and as shown on the Technical Specification Design Drawings in Appendix E.

2. Site 4102129 VO002 (Backfill with Equipment)

a. Location and Description

For access to the 7 sites in Section 29, turn left, or north, at the "T" mentioned above. At about 0.8 mile from the "T" there is a minor fork in the road to the left, however stay straight (right) on the main dirt road. At 1.5 miles from the "T" there will be barbed wire fences on both sides of the road around the locations of sites VO001-VO005.

Vertical opening 4102129VO002 is located in the NW¼NW¼SE¼ of Section 29, T10S, R21E at an elevation of 5244 feet. Site VO002 is on the east side of the road, just inside a barbed wire fence and 96 feet in an easterly direction from VO001 described above. Dimensions of the opening are 2.5 feet wide by 22.0 feet long. The opening is 33 feet deep and on the easterly end slopes steeply to the surface. The site is surrounded by broken rocks and earth, but no formal dump.

b. The Work

The CONTRACTOR shall exclude bats from this shaft prior to any closure activity in accordance with Technical Specification 0250 – Mine Closures.

The barbed wire fence around this site is to have been removed per the description under site 4102129VO001 above. The possible crown pillar between sites VO001 and VO002 has also been covered under The Work for site 4102129VO001 above. Work at this site will require backfilling the opening 33.0 feet to the surface with approximately 45 cubic yards of material. The broken surface material in the immediate vicinity is to be used to reclaim the void in the mined-out opening. Sufficient fill should be available from re-grading the area. The sloping hillside north and south of VO002 is available for borrow material should additional be required. Grade the backfill and borrow areas to blend with the adjacent terrain. The backfill surface will be mounded 2 foot high over the center of the opening. All areas must be graded to promote positive drainage. This work can be done with equipment. All backfilling shall be conducted in accordance with Technical Specification Section 0250 - Mine Closures, and as shown on the Technical Specification Design Drawings in Appendix E.

It is anticipated that revegetation will be performed on this site and the borrow area adjacent to this site.

3. Site 4102129 VO003 (Backfill with Equipment)

a. Location and Description

For access to the 7 sites in Section 29, turn left, or north, at the “T” mentioned above. At about 0.8 mile from the “T” there is a minor fork in the road to the left, however stay straight (right) on the main dirt road. At 1.5 miles from the “T” there will be barbed wire fences on both sides of the road around the locations of sites VO001-VO005. An above ground natural gas pipeline is located parallel to the road isolating sites VO003-VO005. Access to sites VO003-VO005 will be at a point 0.2 miles north of VO003 where the road forks to the west. At this point the above ground gas pipeline paralleling the access road to the sites is buried beneath the road. Access from this point will be south cross-country taking care to minimize any damage to slopes, drainages or vegetation. Access along this route will be kept to once in and once out by construction equipment and minimal support vehicle activity.

Vertical opening 4102129VO003 is located in the NW¼NW¼SE¼ of Section 29, T10S, R21E at an elevation of 5253 feet. Site VO003 is on the west side of the road, about 18 feet inside a barbed wire fence. Dimensions of the opening are 2.0 feet wide by 87.5 feet long. The opening is 57 feet deep. The site is surrounded by broken rocks and earth, but no formal dump exists. There is a broken rock pile immediately to the south of this opening estimated to contain approximately 25 cubic yards of material. South and adjacent to sites 4102129VO003-VO005 (outside the barbed wire fence) is a slope that is estimated to contain in excess of 500 cubic yards of material. This slope is within 250 feet of VO003, 100 feet of VO004 and within 150 feet of VO005 respectively. The sloping hillside immediately to the west of sites VO003-VO005 is also available as a borrow site.

b. The Work

The CONTRACTOR shall exclude bats from this shaft prior to any closure activity in accordance with Technical Specification 0250 – Mine Closures.

The CONTRACTOR will first remove approximately 1,166 perimeter feet of 5-strand barbed wire fencing, complete with steel fence posts and wood corner bracing, which surrounds the three open sites 4102129VO003, 4102129VO004 and 4102129VO005. The wire will be neatly rolled and together with the steel fence posts will be disposed of in an approved landfill or used as

scrap as per Section 2.01(G) above. Work at this site will require probing 2 sites for possible crown pillars (between VO003-VO004, and between VO003 and VO001) and backfilling site 4102129VO003 for 57.0 feet to the surface with approximately 385 cubic yards of material. The borrow areas described in Section A under this site are to be used for backfill material. Grade the backfill and borrow areas to blend with the adjacent terrain. The backfill will be mounded 2 foot high over the center of all filled surfaces and graded to promote positive drainage. This work can be done with equipment.

It is anticipated that revegetation will be performed on this site and the borrow area adjacent to this site.

The gilsonite vein is very continuous along strike length in this area and appears to be near vertical in dip. Two areas of crown pillar probing will be covered under this site. The first to be addressed is between VO003 and VO004, approximately 190 feet. The second is between VO003 and VO001, across the main gravel road, a distance of approximately 50 feet.

The distance between 4102129VO003 and 4102129VO004 is approximately 190 feet in length and is covered with broken rock with some black gilsonite exposed at the surface. It is unknown whether a thin crown pillar exists in this area. Therefore, the CONTRACTOR will probe the 190-foot strike length of the gilsonite vein between 4102129VO003 and 4102129VO004 to test the thickness and integrity of any remaining crown pillar. If an air-track type drill is used for probing, the holes will be on 10-foot centers to a minimum depth of 15 feet, for a total of 18 probe holes. If a backhoe is used, the vein will be exposed (at least bucket width) to a minimum depth of 15 feet in at least 5 different areas equally spaced between 4102129VO003 and 4102129VO004. If it is determined that this area has already been filled or that the intact vein is thicker than 15 feet, then backfilling and re-grading the probe excavations is all that is necessary.

If it is determined that a crown pillar of less than 15 feet vertical thickness exists, then it shall be removed by the most expeditious method; either drilling with moil type long hole equipment (as is currently being used in the on-going gilsonite operations in the area) or by backhoe in accordance with the specifications listed under Crown Pillar Excavation, Section 0255. If a thin crown pillar is present between VO003 and VO004, it is anticipated that approximately 1,100 cubic yards of material would be necessary to fill the resultant opening if it extends to the (averaged) depth of 4102129VO003 and 4102129VO004. The borrow areas mentioned in Section (a) above have sufficient fill material. It should be noted that even though these openings are open to the surface, trapped gilsonite dust can be very explosive. In the event that trapped dust may exist, flammable products or procedures should not be used in testing or removing the gilsonite crown pillar. Re-grade all borrow areas to blend with the adjacent terrain to promote positive drainage. All backfilling shall be conducted in accordance with Technical Specification Section 0250 - Mine Closures, and as shown on the Technical Specification Design Drawings in Appendix E.

The distance between 4102129VO003 and 4102129VO001 is approximately 50 feet in length, however the main gravel road runs perpendicular (in a N-S direction) over this section. There is no black gilsonite exposed at the surface, however, it is unknown whether a thin crown pillar may exist underneath the present gravel road between these two sites. It is therefore necessary to probe the vein area that extends beneath the road. Before any probing work in this area is undertaken, it will be necessary to have completed reclamation at sites VO001 and VO002 and the area in between as described above. The gravel road (between VO003 and VO001) will then be re-routed approximately 50 feet to the east over the now de-fenced and backfilled area between sites VO001 and VO002. It is estimated that 200 feet of road will need to be temporarily re-routed to the east while probing and possible reclamation is conducted. Where access has been created, the access shall be closed following construction. Access improvement and closure shall be performed in accordance with Technical Specification 0230. Access grading shall be in accordance with Section 0270 - Earthwork/Grading.

The CONTRACTOR will then probe the 50-foot strike length of the gilsonite vein between 4102129VO003 and 4102129VO001 to test the thickness and integrity of any remaining crown pillar. If an air-track type drill is used for probing, the holes will be on 10-foot centers to a minimum depth of 15 feet, for a total of 4 probe holes. If a backhoe is used, the vein will be

exposed (at least bucket width) to a minimum depth of 15 feet in at least 1 area between 4102129VO003 and 4102129VO001. If it is determined that this area has already been filled or that the intact vein is thicker than 15 feet, then backfilling and re-grading is all that is necessary.

If it is determined that a crown pillar of less than 15 feet vertical thickness exists, then it shall be removed by the most expeditious method; either drilling with moil type long hole equipment (as is currently being used in the on-going gilsonite operations in the area) or by backhoe in accordance with the specifications listed under Crown Pillar Excavation, Section 0255. The broken material from the crown pillar will be placed into the void and used as backfill. If a thin crown pillar is present between VO003 and VO001, it is anticipated that approximately 385 cubic yards of material would be necessary to fill the resultant opening if it extends to the (averaged) depth and width of 4102129VO003 and 4102129VO001. The borrow areas mentioned in Section (a) above have sufficient fill material. It should be noted that even though these openings are open to the surface, trapped gilsonite dust can be very explosive. In the event that trapped dust may exist, flammable products or procedures should not be used in testing or removing the gilsonite crown pillar. Re-grade all borrow areas to blend with the adjacent terrain to promote positive drainage. All backfilling shall be conducted in accordance with Technical Specification Section 0250 - Mine Closures, and as shown on the Technical Specification Design Drawings in Appendix E.

4. Site 4102129 VO004 (Backfill with Equipment)

a. Location and Description

For access to the 7 sites in Section 29, turn left, or north, at the "T" mentioned above. At about 0.8 mile from the "T" there is a minor fork in the road to the left, however stay straight (right) on the main dirt road. At 1.5 miles from the "T" there will be barbed wire fences on both sides of the road around the locations of sites VO001-VO005. An above ground natural gas pipeline is located parallel to the road isolating sites VO003-VO005. Access to sites VO003-VO005 will be at a point 0.2 miles north of VO003 where the road forks to the west. At this point the above ground gas pipeline paralleling the access road to the sites is buried beneath the road. Access from this point will be south cross-country taking care to minimize any damage to slopes, drainages or vegetation. Access along this route will be kept to once in and once out by construction equipment and minimal support vehicle activity.

Vertical opening 4102129VO004 is located in the NW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 29, T10S, R21E at an elevation of 5254 feet. Site VO004 is on the west side of the road, approximately 295 feet inside a barbed wire fence. This site is a timbered shaft and the general site is strewn with varying sizes of old mine timbers (with nails), steel cable, tin cans and pipe. Dimensions of the opening are 2.0 feet wide by 12.0 feet long. The opening is 95.0 feet deep. The shaft timbers extend approximately 2-4 feet above the surface. The site is surrounded by broken rocks and earth. There is a broken rock pile immediately to the north of this opening estimated to contain approximately 15 cubic yards of material. Immediately north and adjacent to sites 4102129VO003-VO005 (outside the barbed wire fence) is a rock mound that is estimated to contain in excess of 500 cubic yards of material. This mound is within 100 feet of VO003, 350 feet of VO004 and within 500 feet of VO005 respectively. The sloping hillside immediately to the west of sites VO003-VO005 is also available as a borrow site.

b. The Work

The CONTRACTOR shall not be required to exclude bats from this shaft.

The barbed wire fence around this site is to have been removed per the description under site 4102129VO003 above. The possible crown pillar between sites VO003-VO004 and VO003-VO001 has also been covered under The Work for site 4102129VO003 above. The CONTRACTOR shall remove the mine timbers from the shaft collar and any other timber that may obstruct backfilling. The timber shall be neatly stacked away from the backfilled shaft. Earthwork at this site will require backfilling the shaft opening 95.0 feet to the surface with approximately 87 cubic yards of material. The borrow areas described in Section A under this site are to be used for backfill material. The backfill surface will be mounded 2 foot high over the center of the shaft. Then grade the backfill and borrow areas to blend with the adjacent terrain. All areas must be graded to promote positive drainage. This work can be done with equipment.

All backfilling shall be conducted in accordance with Technical Specification Section 0250 - Mine Closures, and as shown on the Technical Specification Design Drawings in Appendix E.

It is anticipated that revegetation will be performed on this site and the borrow area adjacent to this site.

5. Site 4102129 VO005 (Backfill with Equipment)

a. Location and Description

For access to the 7 sites in Section 29, turn left, or north, at the "T" mentioned above. At about 0.8 mile from the "T" there is a minor fork in the road to the left, however stay straight (right) on the main dirt road. At 1.5 miles from the "T" there will be barbed wire fences on both sides of the road around the locations of sites VO001-VO005. An above ground natural gas pipeline is located parallel to the road isolating sites VO003-VO005. Access to sites VO003-VO005 will be at a point 0.2 miles north of VO003 where the road forks to the west. At this point the above ground gas pipeline paralleling the access road to the sites is buried beneath the road. Access from this point will be south cross-country taking care to minimize any damage to slopes, drainages or vegetation. Access along this route will be kept to once in and once out by construction equipment and minimal support vehicle activity.

Vertical opening 4102129VO005 is located in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 29, T10S, R21E at an elevation of 5260 feet. Site VO005 is on the west side of the road, approximately 425 feet inside a barbed wire fence. Dimensions of the opening are 6.5 feet wide by 27.0 feet long. The opening is 32.0 feet deep at the deepest part, however there is a rock bench extending approximately half the length of the opening and this bench is 16.0 feet below the surface. There is a visible 7-foot thick crown pillar extending over the eastern and deepest end of this site. The site is surrounded by broken rocks and earth, but no formal dump. Immediately north and adjacent to sites 4102129VO003-VO005 (outside the barbed wire fence) is a rock mound that is estimated to contain in excess of 500 cubic yards of material. This mound is within 100 feet of VO003, 350 feet of VO004 and within 500 feet of VO005 respectively. The sloping hillside immediately to the west of VO005 is also available as a borrow site.

b. The Work

The CONTRACTOR shall not be required to exclude bats from this shaft.

The barbed wire fence around this site is to have been removed per the description under site 4102129VO003 above. Earthwork at this site will require backfilling the opening 32.0 feet to the surface with approximately 120 cubic yards of material. The borrow areas described in Section A under this site are to be used for backfill material. The visible crown pillar is to be removed with either moil drilling or backhoe and broken material placed in the opening. Grade the backfill and borrow areas to blend with the adjacent terrain. The backfill will be mounded 2 foot high over the center of all filled surfaces and graded to promote positive drainage. This work can be done with equipment.

The gilsonite vein is very continuous along strike length and appears to be near vertical in dip. The distance between 4102129VO004 and 4102129VO005 is approximately 118 feet in length and is covered with broken rock with broken black gilsonite exposed at the surface. It is unknown whether a thin crown pillar exists along the entire length in this area. Therefore, the CONTRACTOR will probe the 118-foot strike length of the gilsonite vein between 4102129VO004 and 4102129VO005 to test the thickness and integrity of any remaining crown pillar. If an air-track type drill is used for probing, the holes will be on 10-foot centers to a minimum depth of 15 feet, for a total of 11 holes. If a backhoe is used, the vein will be exposed via a bucket-width cut to a minimum depth of 15 feet in at least 3 different areas spaced an equal distance (roughly 30 feet) apart between 4102129VO003 and 4102129VO004. If it is determined that this area has already been filled or that the intact vein is thicker than 15 feet, then backfilling and re-grading is all that is necessary.

If it is determined that a crown pillar of less than 15 feet vertical thickness exists, then it shall be removed by the most expeditious method; either drilling with moil type long hole equipment (as is currently being used in the on-going gilsonite operations in the area) or by backhoe in

accordance with the specifications listed under Crown Pillar Excavation, Section 0255. The broken material from the crown pillar excavation is to be used for fill material. If a thin crown pillar is present, it is anticipated that approximately 1,290 cubic yards of material would be necessary to fill the resultant opening if it extends to the (averaged) depth and width of 4102129VO004 and 4102129VO005. The borrow areas described in Section A under this site are to be used for backfill material.

Immediately west and uphill along strike from VO005, the ground is disturbed in a shallow trench fashion in the vein area. This area will undoubtedly have been uncovered previously in the borrowing process for the other sites. If this area has not already been uncovered via using this as a borrow site, this approximate 40 foot trench should be probed as described above, with either 3 long holes or 1 bucket-width backhoe cut spaced equally apart. Based upon the depth of the adjacent VO005, it is feasible that approximately 308 cubic yards of material might be needed to fill this potential opening. The borrow site for this would be the unconsolidated material on the adjacent hillside immediately uphill and to the west. It should be noted that even though these openings are open to the surface, trapped gilsonite dust can be very explosive. In the event that trapped dust may exist, flammable products or procedures should not be used in testing or removing the gilsonite crown pillar. Re-grade all borrow areas to blend with the adjacent terrain to promote positive drainage. All backfilling shall be conducted in accordance with Technical Specification Section 0250 - Mine Closures, and as shown on the Technical Specification Design Drawings in Appendix E.

It is anticipated that revegetation will be performed on this site and the borrow area adjacent to this site.

6. Site 4102129 VO006 (Backfill with Equipment)

a. Location and Description

For access to the 7 sites in Section 29, turn left, or north, at the "T" mentioned above. At about 0.8 mile from the "T" there is a minor fork in the road to the left, however stay straight (right) on the main dirt road. At 1.5 miles from the "T" there will be barbed wire fences on both sides of the road around the locations of sites VO001-VO005. To get to VO006, continue past Sites VO001-VO005 on this same road approximately 0.3 miles further and around a sweeping right turn, there is a rough gravel wash road (Cottonwood Wash) that departs to the right off the main gravel road. Taking this wash road in about 300 yards, one will see site VO006 up to the right on the hill, also surrounded by barbed wire fencing.

Vertical opening 4102129VO006 is located in the NE $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 29, T10S, R21E at an elevation of 5240 feet. Site VO006 is on the west side and above the Cottonwood Wash drainage and road as described previously. VO006 is approximately $\frac{1}{4}$ mile east of 4102120VO002, although there is no road from VO002 to this site at present. The site is located about 25 feet inside a 4-foot high, 4-strand barbed wire fence. Dimensions of the opening are 2.0 feet wide by 26.0 feet long. The opening is 8.0 feet deep in the center of the slot, with both ends sloping towards the surface, particularly on the east side. The site is surrounded by broken rocks and earth. Small rusty cans are present, however, there is no mine dump at this site.

b. The Work

The CONTRACTOR shall not be required to exclude bats from this shaft.

The CONTRACTOR will need to improve access from the bottom of Cottonwood Wash to the site prior to reclamation, which is approximately 4 feet up a bank and then slightly uphill and 255 feet to the fenced site. The CONTRACTOR shall improve access to the site along the route described to the degree required to conduct the WORK. Where access has been created, the access shall be closed following construction. Access improvement and closure shall be performed in accordance with Technical Specification 0230. Access grading shall be in accordance with Section 0270 - Earthwork/Grading.

There is no surface evidence of mining activity or gilsonite present along the quarter mile distance between sites VO002 and VO006, therefore no probing is indicated for this area. For

site VO006, the CONTRACTOR will first remove approximately 334 perimeter feet of 4-strand barbed wire fencing, complete with steel fence posts and wood corner bracing, which surrounds sites 4102129VO006. The wire will be neatly rolled and together with the steel fence posts will be disposed of in an approved landfill or used as scrap as per Section 2.01(G) above. Any tin cans and other debris will be placed away from the vertical opening and replaced when the opening is reclaimed. Any wooden fence braces will be stacked neatly away from the backfilled opening. Earthwork at this site will require backfilling the opening 8.0 feet to the surface with approximately 19.0 cubic yards of material. This work could be done by hand scaling and shovel, however, if a backhoe is present and used to remove the steel fence posts, then this would be the most expeditious method. There is sufficient material in the immediate vicinity to re-grade the area and use this for fill. Then re-grade area to blend with the adjacent terrain. The backfill surface will be mounded 2 foot high over the center of the opening. All areas must be graded to promote positive drainage. This work can be done easily with equipment. All backfilling shall be conducted in accordance with Technical Specification Section 0250 - Mine Closures, and as shown on the Technical Specification Design Drawings in Appendix E.

It is anticipated that revegetation will be performed on this site and the borrow area adjacent to this site.

7. Site 4102129 VO007 (Backfill with Equipment)

a. Location and Description

For access to the 7 sites in Section 29, turn left, or north, at the "T" mentioned above. At about 0.8 mile from the "T" there is a minor fork in the road to the left, however stay straight (right) on the main dirt road. At 1.5 miles from the "T" there will be barbed wire fences on both sides of the road around the locations of sites VO001-VO005. Following this same road approximately 0.3 miles further and around a sweeping right turn, there is a rough gravel wash road (Cottonwood Wash) that departs to the right off the main gravel road. This wash road to the right is the entrance to site VO006. For site VO007, continue past Cottonwood Wash and straight on the main gravel road (southeast) for another 0.5 mile. There is a visible concrete-capped shaft on the right and just past this is open site VO007 up and to the right and surrounded by fencing.

Vertical Opening 4102129VO007 is located in the NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 29, T10S, R21E at an elevation of 5301 feet. Site VO007 is on the south side and approximately 45 feet along slope above the road. There is a small access road on the east end of this site leading from the main gravel road (discussed above) up to the fenced opening. The site is surrounded by a combination link and barbed wire fence (5 feet high) and is posted with signs reading DANGER...Caving Area...Keep Out. Dimensions of the opening are 5.5 feet wide by 39.0 feet long. The opening is 15.0 feet deep. There is a visible rectangular-shaped concrete collar structure that extends 1.5 feet above the ground level and downward about 6 feet below the ground surface. The horizontal footprint of this concrete structure is roughly 16 feet long by 8 feet wide by 7.5 feet in total height. The southern, eastern and western walls of the structure are 6" thick, while the northern wall is 15" thick. It is not known if there is steel reinforcing in the structure. Within the fenced perimeter there is some scattered trash and debris. The site is in the lower portion of an exposed rock hillside. There is no dump material nearby.

b. The Work

The CONTRACTOR shall not be required to exclude bats from this shaft.

There is no significant surface evidence of mining activity or gilsonite present between the capped shaft mentioned above and VO007, therefore no probing is indicated for this area. For site VO007, the CONTRACTOR will first remove approximately 130 perimeter feet of combination 4-foot high wire fence topped with 2-strands of barbed wire, complete with steel fence posts and wood corner bracing, which surrounds sites 4102129VO007. The wire will be neatly rolled and together with the steel fence posts will be disposed of in an approved landfill or used as scrap as per Section 2.01(G) above. Any tin cans and other debris will be placed away from the vertical opening and replaced when the opening is reclaimed. Any wooden fence braces will be stacked neatly away from the backfilled opening. The concrete collar structure described in Section A above contains approximately 11.1 cubic yards of concrete. The

CONTRACTOR will not disturb this structure as practical during the backfilling of the shaft. Earthwork at this site will require backfilling the opening 15.0 feet to the surface with approximately 135 cubic yards of material. Adjacent rock/soil materials to the south and below this site (short access road) are available for a borrow site. After filling the hole, re-grade the area to blend with the adjacent terrain. The backfill surface will be mounded 2 foot high over the center of the opening. All areas must be graded to promote positive drainage. This work can be done with equipment. All backfilling shall be conducted in accordance with Technical Specification Section 0250 - Mine Closures, and as shown on the Technical Specification Design Drawings in Appendix E.

It is anticipated that revegetation will be performed on this site and the borrow area adjacent to this site.

8. Site 4102132 VO001 (PUF - Bats)

a. Location and Description

The "T" in the dirt road (1.2 miles east from the main gravel road and Love Compressor Station sign) that has been the locus for all the sites in Section 29 will also serve as the locus for the two sites in Section 32. The access to the two open sites in Section 32, T10S, R21E, will be described from this point and are easily located from the "T" in the road. Both sites in Section 32 are within a half-mile of this "T". To access VO001 in Section 32, turn left (north) at the "T" and travel a quarter mile and there is a faint road which forks to the left. Take this road about 80 yards and you will see the black gilsonite coloring on the left. The open shaft VO001 is at this site.

Vertical Opening 4102132VO001 is located in the NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 32, T10S, R21E at an elevation of 5360 feet. Site VO001 is on the west side of the faint access road described above. The site is surrounded on both sides by black gilsonite cuttings and the site is openly exposed with no fencing or signs present. Some small debris is present. Dimensions of the opening are 1.5 feet wide by 47.0 feet long. The opening is 64.0 feet deep. There are visible stull supports in the trench opening below ground surface. The site is surrounded by broken rocks, earth, and mounds of gilsonite, but no formal dump. Immediately south (approximately 100 feet) of the open trench is a bank of loosely consolidated rocks and earth along a gently upward sloping hillside.

b. The Work

The CONTRACTOR shall exclude bats from this shaft prior to any closure activity in accordance with Technical Specification 0250 – Mine Closures.

The CONTRACTOR shall protect the mine timbers (short stulls) within the shaft. The wooden stull supports that are sub-surface should not interfere with backfilling this site, however, those that are within 5 feet of the surface and that can be removed safely may be removed if necessary before placement of PUF. The CONTRACTOR will stack any wooden debris neatly away from the exposed trench. A small amount of other debris consisting of broken glass, metal and china shall also be protected during closure reclamation. If earth-moving work is required at the site, the mine timbers will be left intact as practical and other debris will be placed away from the opening and replaced after closure of the vertical opening.

The CONTRACTOR will be required to install a Shaft PUF (Polyurethane Foam) Closure of 4102132VO001. The CONTRACTOR will fabricate this closure on site per the dimensions determined by CONTRACTORS field measurements and as approved by the OWNER. It is estimated that the closure will have a PUF length of 47 feet by 1.5 feet wide. The top of the finished concrete/PUF cap shall be 2 feet below the level of the collar to retain the historic appearance of the shaft. One foot of native rock/soil will be placed on the top of the finished concrete cap. Borrow material location will be determined in the field as approved by the OWNER and away from any historical materials. Construction estimates for this PUF closure are provided in the table located in Section 0300, Part 3.01.M. on page 122. Fabrication and installation shall be conducted in accordance with Technical Specification Sections 0250 through 0254 and as shown on the Drawings in Appendix E. Grade the backfill and borrow areas to blend with the adjacent terrain. All areas must be graded to promote positive drainage. This

work can be done with equipment. All backfilling shall be conducted in accordance with Technical Specification Section 0250 - Mine Closures, and as shown on the Technical Specification Design Drawings in Appendix E.

It is anticipated that revegetation will be performed on the borrow area adjacent to this site.

9. Site 4102132 VO002 (Backfill with Equipment - Bats)

a. Location and Description

The "T" in the dirt road (1.2 miles east from the main gravel road and Love Compressor Station sign) that has been the locus for all the sites in Section 29 will also serve as the locus for the two sites in Section 32. The access to the two open sites in Section 32, T10S, R21E, will be described from this point and are easily located from the "T" in the road. Both sites in Section 32 are within a half-mile of this "T". To access VO002 in Section 32, look east from the "T" in the road mentioned previously. There is a faint, 'cow pasture' road that continues east at the "T". Following this road until it ends (about 0.5 mile) will place you at site VO002 in Section 32, however, the last 300 yards of this road is very rough and strictly high-clearance 4-wheel drive or equivalent vehicle.

Vertical opening 4102132VO002 is located in the NW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 32, T10S, R21E at an elevation of 5331 feet. Site VO002 is located at the end of the rough 4-wheel drive section of the road described above. The site is evidenced from the end of the road on the south side by black gilsonite rock cuttings and visible shaft collar timbers above the ground level. Although the road does not end directly at the site, the approximate 100-foot distance from the road to the site is level and unobstructed. The site is openly exposed with no fencing or signs present. Some small debris is present. Dimensions of the opening are 2.0 feet wide by 10.0 feet long by 50.0 feet deep. Visible timber linings exist at least 15 feet below the surface. The site is surrounded by small mounds of gilsonite, but no formal dump. Approximately 25 feet west of the open shaft is a hillside of loosely consolidated sedimentary rocks and earth. There is sufficient material in this hillside to be used as a borrow location for this site.

b. The Work

The CONTRACTOR shall exclude bats from this shaft prior to any closure activity in accordance with Technical Specification 0250 – Mine Closures.

The CONTRACTOR will need to improve access from the end of the 'cow pasture' road to the VO002 site itself (approximately 100 feet) and to the borrow site hillside immediately to the west. The CONTRACTOR shall improve access to the site along the route described to the degree required to conduct the WORK. Where access has been created, the access shall be closed following construction. Access improvement and closure shall be performed in accordance with Technical Specification 0230. Access grading shall be in accordance with Section 0270 - Earthwork/Grading.

The CONTRACTOR shall protect any mine timbers (short stulls) within and around the shaft. A small amount of other debris consisting of broken glass, metal and china shall also be protected during closure reclamation. The mine timbers will be left intact as practical and other debris will be placed away from the opening and replaced after closure of the vertical opening. Earthwork at this site will require backfilling the opening 50 feet to the surface with approximately 39 cubic yards of material from re-grading/re-contouring the surrounding area and from the adjacent hillside to the west if necessary. Once the shaft is filled, grade the backfill and borrow areas to blend with the adjacent terrain. The backfill surface will be mounded 2 foot high over the center of the shaft. All areas must be graded to promote positive drainage. This work can be done with equipment. All backfilling shall be conducted in accordance with Technical Specification Section 0250 - Mine Closures, and as shown on the Technical Specification Design Drawings in Appendix E.

It is anticipated that revegetation will be performed on this site and the borrow area adjacent to this site.

END OF SECTION 0300

